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# FIELDIANA

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### Rediscovery of *Syagrus werdermannii* Burret<sup>1</sup>

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In the process of preparing a revision of the genus *Syagrus* Mart., I learned that the holotype of *S. werdermannii* (Werdermann 3472, B) was apparently destroyed during World War II at the Berlin-Dahlem herbarium. It was not among the photographs of *Syagrus* specimens salvaged from the ruins which were sent to me by that institution (Glassman, 1969). Although Burret's description (1933) of *S. werdermannii* was detailed, I was unable to pinpoint it because no other specimens were collected since 1933.

During the summer of 1969, I decided to visit the type locality (Caetité, state of Bahia, Brazil) in an attempt to make additional collections. Since there were at least five roads radiating out of Caetité, it would have been virtually impossible to find this palm without the help of local inhabitants. I was fortunate to rediscover *S. werdermannii* after I had enlisted the aid of Mr. Francisco Antonio da Silva, a relative of the owner of Hotel Caetité, who knew exactly where to find this species. About 100 different clumps were seen on both sides of the road in Situ do Ouro, about 15 km. northwest of Caetité. It was associated with another acaulescent palm, *Bactris tucum* Burret.

Mr. da Silva told me that he had seen this acaulescent species of *Syagrus* within an 80 km. radius between Situ do Ouro and Igaporã, about 20 km. to the northwest. In his "Palmeiras do Brasil," Bondar (1964) repeated Burret's listing of *S. werdermannii* from Caetité, but stated that he also observed it in Mucuge, which is about 150 km. northeast of Caetité. Apparently, no collections were made by him from that area.

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FIG. 1. Several clumps of *Syagrus werdermannii*, near type locality.



FIG. 2. Mr. Costa, Mr. da Silva, and Mr. Edgar (left to right) near type locality. Mr. Costa and Mr. Edgar holding specimens of *S. werdermannii*.



*Diology*

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FIG. 3. *S. werdermanii*. Mature spathe and spadix showing female and male flowers. *Glassman & Costa 8723*. Part of neotype.



FIG. 4. Older spathe (external view) and spadix showing female and male flowers. 8731.



FIG. 5. Whole plant showing leaves and subterranean stem. 8733.





FIG. 6. Spathe (left) and spadix (right) showing unusually long peduncle, long spadix branches, and immature fruit. 8736.



FIG. 7. Cross- and longitudinal sections and external view of ovoid shaped fruits. 8739. External view of obovate shaped fruit (far right). 8737.

I have chosen *Glassman & Costa 8728* as the neotype of *S. werdermannii* because the specimens include most of the important parts necessary for identification. The emended description below, which varies somewhat from Burret's, is based mainly on specimens collected by Mr. J. T. M. Costa and myself and are cited below. They are deposited in the University of Illinois, Chicago Circle Herbarium (CHI).

***Syagrus werdermannii*** Burret, Fedde Rep. 32: 109. 1933; Notizbl. 13: 682. 1937. Figures 1-9.

Acaulescent, growing in clumps. Petiole up to 36 cm. long and 1 cm. wide, margins smooth or fibrous, sheathing base up to 20 cm. long, deteriorating into separate fibers with age; leaf rachis up 59 cm. long, pinnae up to 19 pairs per leaf, middle ones single or in loose or occasionally tight clusters of 2-3, up to 45 cm. long, 1-2 cm. wide, mostly with oblique, aristate tips, glaucous on both surfaces, becoming eglaucous with age, upper surface mostly remaining whitish or grayish in color, lower surface greenish; expanded part of flowering spathe up to 40 cm. long and 3 cm. wide, deeply sulcate but grooves obscured by dense brown tomentum; branched part of spadix up to 30 cm. long, densely tomentose, peduncular part up to 49 cm. long, branches up to 11 in number, each branch up to 22 cm. long; male flowers 6-7 mm. long on lower part, 4-5 mm. long on upper part; female flowers triangular to ovate, 4-6 mm. long and 4 mm. wide, calyx brownish, distinctly striated or nerved, often shorter than the yellowish, smooth corolla; expanded part of fruiting spathe up to 48 cm. long and 5 cm. wide, deeply sulcate, brownish tomentose, becoming caducous with age; branched part of spadix up to 40 cm. long, peduncular part up to 72 cm. long, branches up to 14 in number, each branch up to 25 cm. long; mature fruit ovoid or obovate, 1.8-2.5 cm. long, 1.3-1.5 cm. in diameter, with short beak up to 4 mm. long, exocarp finely striated, endocarp cavity smooth, trivittate, endocarp woody, 1.0-1.5 mm. thick along sides; seed not seen.

Flowering from May to July.

Type: Brazil, Caetité, *Werdermann 3472* (B, destroyed); *Glassman & Costa 8728* (CHI, neotype).



FIG. 8. Mature leaf showing complete sheathing base and pinnae with oblique and aristate tips. 8731.



FIG. 9. Mature leaf (apical part missing) showing clustering of pinnae and oblique and aristate tips. 8732.

Distribution: Endemic to Brazil in the state of Bahia.

Vernacular name: Coco da vassoura.

Cited specimens. Brazil: Bahia, Situ do Ouro, 15 km. N.W. of Caetitê, in caatinga, July 6, 1969, *Glassman & Costa 8728* (CHI, neotype); *8729, 8730, 8731, 8732, 8733, 8734, 8735, 8736, 8737, 8738, 8739* (CHI).

In his original article, Burret (1933) said that this taxon seemed to be related to *Syagrus petraea* (Mart.) Becc., an acaulescent species with unclustered pinnae and unbranched spadices in the section DIPLOTHEMIOPSIS (Drude) Glassman. It is more likely that *S. werdermannii* is allied to members of the section CAMPYLOSPATHA Glassman (acaulescent species with loosely clustered pinnae and branched spadices), especially *S. campylospatha* (Barb. Rodr.) Becc. from Paraguay (Glassman, 1970). Both species are similar in the type of pinnae clustering (loosely clustered or unclustered, occasionally tightly clustered), both have pinnae with oblique tips, male and female flowers approximately the same size, and the calyx of the female flowers is usually distinctly nerved or striated in both taxa. They differ principally in the number of pinnae per leaf and the kind of indument on the pinnae surfaces. *Syagrus campylospatha* has up to 38 pairs of pinnae per leaf which are appressed white brownish pubescent on the upper surface and mostly glaucous on the lower surface, whereas *S. werdermannii* has up to 19 pairs of pinnae per leaf and are glaucous on both surfaces.

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